

Biological activity of *Crambe orientalis* L. growing in Iran

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ABSTRACT

Crambe orientalis (Brassicaceae) is a perennial herb growing wild in Iran. Cytotoxic, antioxidant, antimicrobial and phytotoxic effects of the plant leaves extracts have been evaluated by MTT, DPPH, Disc diffusion and lettuce assays, respectively. Our results showed that dichloromethane and methanol extracts of the plant leaves exhibited high cytotoxic effects against Mc-Coy cell line with IC₅₀ value of 659 and 432 g/ml, respectively. The extracts indicated high antioxidant activity with RC₅₀ value of 33.3 and 40.5 g/ml, respectively. Methanol extract showed strong antibacterial activity against both gram-positive and gram-negative bacteria. All the extracts displayed significant allelopathic potential, as well as. It is assumed that biological activity of the plant may be related to presence of isothiocyanates in the plant leaves.

KEYWORDS

Crambe orientalis . Antioxidant . Cytotoxic . Antimicrobial . Allelopathy

REFERENCES

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